TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL NASA/GODDARD SPACE FLIGHT CENTER REQUEST FOR TASK PLAN / TASK ORDER CONTRACTOR Job Croer Number NAS5-TASK NO. **AMENDMENT** 99124 QSS Group, Inc. 924-227-62-49-89 99 TASK TITLE: (NTE 80 characters; include Project name) **ICESat GLAS Power Supply Rack** APPROVALS: (Type or paint name and sign) ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR) Tom Feild 568 568 301-286-6686 BRANCH HEAD CODE Fred Huegel 568 301-286-2285 CONTRACTING OF Robert S. Lebair, 560 301-286-6382 FLIGHT HARDWARE, CRITICAL OSE OR SOFTWARE? DESIGNATED FAM: OFFICER'S QUALITY REP 2 Moore per Ron Kolecki [X] YES Larry Moore The contractor shall identify and explain the reason for any deviations, exceptions, (To be completed by Contracting Officer) or conditional assumptions taken with respect to this Task Order or to any of the C.O. Requested Quote on: technical requirements of the Task Order Statement of Work and related specifications. Date: JUL - 1 1999 The contractor shall complete and submit the required Reps and Certs. Contractor will develop specification or statement of work under this task for a future procurement. [X] NO [] YES Flight hardware will be shipped to GSFC for testing prior to final delivery. [X] NO Government Furnished Property/Facilities: [] YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only) [X] NO Onsite Performance: [] NO [X] YES If yes: [] TOTAL [X] PARTIAL If partial, indicate onsite work in SOW by asterisk (*) Surveillance Plan Attached: [X] NO Highlighted Contract Clauses: (to be completed by Contracting Officer) Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be July 1, 1999. INCENTIVE FEE STRUCTURE (check one) (See Contract NAS5-99 24, Attachment K, Incentive Fee Plan) _X_ No. 5 No. 1 No. 2 No. 3 No. 4 50% 20% 10% 25% 25% Cost 40% Schedule 15% 25% 25% 50% Technical 75% 25% 50% 25% 40% eted by Contracting Office The target cost of this task order is \$ 202,230 The target fee of this task order is \$ The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 203,630 The maximum fee is \$ The minimum fee is \$0. AUTHORIZED SIGNATURE: Lorrie L. Eakin Contracting Officer TYPED NAME OF CONTRACTING OFFICER CONTRACTOR'S ACCEPTANCE DATE AUTHORIZED SIGNATURE 12/98 (OLDER VERSIONS ARE OBSOLETE)

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

Page 2 of 3

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	NO:TTASK NO.	1444	1000000000000000000000000000000000000
	NAS5-	T.	ASK NO.	AMENDMENT
QSS Group, Inc.	9912	24	110	
Applicable paragraphs from contract Statement of Work:		Function 4D5		

STATEMENT OF WORK:

(Continue on blank paper if additional space is required)

- 1.1 The contractor shall provide a manually operated double bay rack of ground support equipment identified as the GLAS Bench Checkout Equipment (GLAS/BCE) Power Control Rack.
- 1.2 The contractor shall provide schematics and mechanical layouts of all components in this system.
- 1.3 The contracotr shall provide a test and operations manual for the components in this system.

The BCE also consists of the following components:

Laser Test System (LTS), Altimetry Test System (ATS), Stellar Reference Test System (SRTS), and Lidar Test System (LiTS).

- 2. For each of the subsystems listed above, the contractor shall:
 - Assist in defining the mechanical layout and footprint and deliver drawings showing both
 - Assist in identifying the electrical interfaces including connector numbering, cabling, and the grounding and shielding methods to be used. Deliver electrical drawings identifying these.
 - Assist in defining/designing any custom cabling needed and deliver drawings of these cables.
 - Build all custom cabling as defined above.
- 3. For the BCE system, which includes all components above plus the targets, the ASIST station, the DHDS, the ITOC, and the NTGSE, the contractor shall:
 - Assist in defining the mechanical layout and footprint and deliver drawings showing both
 - Assist in identifying the electrical interfaces between components including connector numbering, cabling, and the grounding and shielding methods to be used. Deliver electrical drawings identifying these.
 - Assist in defining/designing any custom cabling needed and deliver drawings of these cables.
 - Build all custom cabling as defined above.
 - Develop procedures for setting up and breaking down the BCE system.
- 4. For the interface betweent the BCE and the GLAS instrument the contractor shall:
 - Develop a cable layout and deliver drawings showing this layout.
 - Develop harness drawings for all BCE/Instrument interface cables including cables used for environmental testing.
 - Build and test these cables
 - Develop procedures for interfacing the BCE to the instrument including safe-to-mate procedures
- 5. The contractor shall develop all hardware required for a GLAS instrument simulator including connector panels containing the flight interface connectors and cabling from this panel to the GLAS simulator PC and to test pots, LEDS and switches, as required to simulate the GLAS instrument.
- 6. The contractor shall develop BCE to control the GLAS survival heaters
- 7. The contractor shall build, document and install a GLAS safety system.
- 8. The contractor shall provide updates and maintenance of the system as required.
- 9. The contractor shall provide operations support for the GLAS BCE.

PERFORMANCE SPECIFICATIONS:

The equipment, which is used to power an instrument containing Class IV lasers, must meet the applicable laser safety requirements in NHB 1860.3 and ANSI Z136.1-1993 as well as the GLAS Laser Safety Plan GLAS-568-PLAN-001

APPLICABLE DOCUMENTS:

NHB 1860.3 Radiation Safety - Laser

ANSI Z136.1-1993 American National Standard for the Safe Use of Lasers

5/30/00

GLAS-568-PLAN-001 GLAS Laser Safety Plan

PERFORMANCE STANDARDS:

TASK END DATE:

Schedule:

On-time delivery of the above

Technical:

ATR's acceptance of the above

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Thomas Feild, building 5, room W76G

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NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTINO TASKINO.

QSS Group, Inc.

-NAS5-99124 TASK NO. 110 AMENDMENT

Page 3 of 3

MILESTONES/DELIVERABLES AND DATES:

Item 1: * GLAS/BCE Rack (Manual Mode) 80% on site, panels offsite

1.1 Due 1/20/2000

1.2 Due 2/20/2000

1.3 Due 6/1/2000

Item 2: BCE Subsystem harness development (100% onsite)

For LTS Due 4/1/99

For ATS Due 3 months after final ATS definition

For LiTS Due 3 months after final LiTS definition

For SRTS Due 3 months after final SrTS definition

Item 3: BCE interface definition, development and documentation: (100% onsite)

Due 1 month after completion of Item 2.

Item 4: BCE/Instrument interface definition, development and documentation: (100% onsite)

TVac cabling due 3 months after item 2. The rest is due 1 month after item 2.

Item 5: Instrument Simulator (80% onsite - panels offsite)

Due 3/15/2000

Item 6: Survival heaters (80% onsite - panels offsite)

Due 1 month after item 4

Item 7: Safety System

Due 1 month after facility installation of emergency signs.

Items 8: Modifications to system.

Due 3 weeks after request for update: Updated drawings, test and operations procedures

All source code and executables for all modified software.

Item 9: Operations support (100% onsite)

Due within 1 day of supported activity: Operations logs for supported activity

Note: All software deliveries to include all source code and executables.